

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

Claim 1. (Currently Amended) A die adaptor system for use in a press machine comprising:

a lower adaptor including a lower forming plate including a raised upwardly facing contact surface;

an upper adaptor including an upper forming plate including a raised downwardly facing contact surface;

a tool package formed by said upper adaptor and said lower adaptor, wherein said tool package can be interchanged with a different tool package;

a lower shoe detail including a lower die shoe forming a base of said lower shoe detail, wherein said lower die shoe has an upper surface configured to receive said lower adaptor as a part of said lower shoe detail, and said upper surface has a punch adaptor that rests on the upper surface of said lower die shoe and extends upward from said upper surface; and

a lower binder holder that extends across a lower die shoe, wherein said lower binder holder includes an aperture that circumscribes said upper portion of said punch adaptor to form a recess for receiving said lower adaptor; and

an upper shoe detail having an upper die shoe forming a base of said upper shoe detail, wherein said upper shoe detail has a lower surface configured to receive said upper adaptor as part of said upper shoe detail.

Claim 2. (Original) The die adaptor system of claim 1 wherein said tool package formed by said lower adaptor and said upper adaptor are abuttingly engaged along said downwardly facing contact surface and said upwardly facing contact surface.

Claim 3. (Canceled)

Claim 4. (Currently Amended) The die adaptor system of claim [[3]] 1 wherein said lower adaptor further comprises a lower binder plate that circumscribes said raised upwardly facing contact surface, wherein said lower binder plate functions to size the lower adaptor to fit within said aperture of said lower binder holder.

Claim 5. (Currently Amended) The die adaptor system of claim [[3]] 1 further comprising a pair of rotating latches which have an end disposed in said aperture of said lower binder holder.

Claim 6. (Currently Amended) The die adaptor system of claim [[3]] 1 further comprising one or more nitro cylinders dispersed along said upper surface of said lower die shoe, wherein said nitro cylinders provide greater binder holding pressure.

Claim 7. (Original) The die adaptor system of claim 1 wherein said lower surface of said upper die shoe further comprises an upper binder holder, wherein said upper binder holder has a centrally located aperture for receiving said upper adaptor plate.

Claim 8. (Currently Amended) ~~The die adaptor system of claim 7~~ A die adaptor system for use in a press machine comprising:

a lower adaptor including a lower forming plate including a raised upwardly facing contact surface;

an upper adaptor including an upper forming plate including a raised downwardly facing contact surface;

a tool package formed by said upper adaptor and said lower adaptor, wherein said tool package can be interchanged with a different tool package;

a lower shoe detail including a lower die shoe forming a base of said lower shoe detail, wherein said lower die shoe has an upper surface configured to receive said lower adaptor as a part of said lower shoe detail; and

an upper shoe detail having an upper die shoe forming a base of said upper shoe detail, wherein said upper shoe detail has a lower surface configured to receive said upper adaptor as part of said upper shoe detail, and said lower surface of said upper die shoe has an upper binder holder, wherein said upper binder holder has a centrally

located aperture for receiving said upper adaptor plate, wherein said upper adaptor further comprises an upper binder plate that circumscribes said raised downwardly facing contact surface, wherein said upper binder plate functions to size said upper adaptor to fit within said aperture of said upper binder holder.

Claim 9. (Original) The die adaptor system of claim 7 further comprising one or more keeper pins connected to the upper binder holder, wherein said keeper pins are configured to fasten said upper adaptor to said upper binder holder.

Claim 10. (Original) The die adaptor system of claim 1 further comprising:
one or more locator pins attached to said upper surface of said lower die shoe and extending toward said upper die shoe; and
one or more locator pin holes in said lower surface of said upper die shoe, wherein said one or more locator pin holes is configured to receive said one or more locator pins during a pressing operation.

Claim 11. (Original) The die adaptor system of claim 1 further comprising:
a first lower binder holder that rests against two or more raised edges of said lower die shoe and extends across said lower die shoe, wherein said first lower binder holder has an aperture;
a first upper binder holder, extending across said upper die shoe, wherein said first upper binder holder has an aperture;
a second lower binder holder that can be interchanged with said first lower binder holder, wherein said second lower binder holder has an aperture that is a different size or shape than said aperture of said first lower binder holder; and
a second upper binder holder that is configured to be interchanged with said first upper binder holder, wherein said second upper binder holder has an aperture that is a different size or shape than said aperture of said first upper binder holder.

Claim 12. (Currently Amended) ~~The die adaptor system of claim 1 further comprising~~ A die adaptor system for use in a press machine comprising:
a lower adaptor including a lower forming plate including a raised upwardly facing contact surface;

an upper adaptor including an upper forming plate including a raised downwardly facing contact surface;

a tool package formed by said upper adaptor and said lower adaptor, wherein said tool package can be interchanged with a different tool package;

a lower shoe detail including a lower die shoe forming a base of said lower shoe detail, wherein said lower die shoe has an upper surface to receive said lower adaptor as a part of said lower shoe detail;

an upper shoe detail having an upper die shoe forming a base of said upper shoe detail, wherein said upper shoe detail has a lower surface configured to receive said upper adaptor as part of said upper shoe detail; and

a lift mechanism positioned below said tool package, wherein said lift mechanism contacts the bottom surface of said lower adaptor to allow said lift mechanism to raise and lower said tool package.

Claim 13. (Original) The die adaptor system of claim 12 wherein said lift mechanism is a rack and pinion lift mechanism that is integrated as part of said lower die shoe.

Claim 14. (Original) The die adaptor system of claim 12 wherein said lift mechanism operates by contacting a flange mounted to the side of said lower adaptor.

Claim 15. (Original) The die adaptor system of claim 12 wherein said lift mechanism is hydraulically or pneumatically operated.

Claim 16. (Original) The die adaptor system of claim 1 wherein said tool package is a tool package for a punch press having a lower adaptor having a forming surface and one or more punch cores having holes there through, and an upper adaptor having a forming surface and one or more punches configured to align with said holes of said one or more punch cores.

Claim 17. (Original) The die adaptor system of claim 1 wherein said lower binder holder has one or more chutes that extend through said lower binder holder to a collection pan.

Claims 18-26. (Canceled)